Seamless WLAN GSM mobility architechture

FIG. 1

MSC/HLR ~120

Network management System ~300

AGW ~310

ILR ~320

MTS ~320

hotspot LAN ~230

110

BSC ~114

BTS ~112

GSM 100

WLAN access point with WMC SW WMC ~210

WLAN 200

MS 150
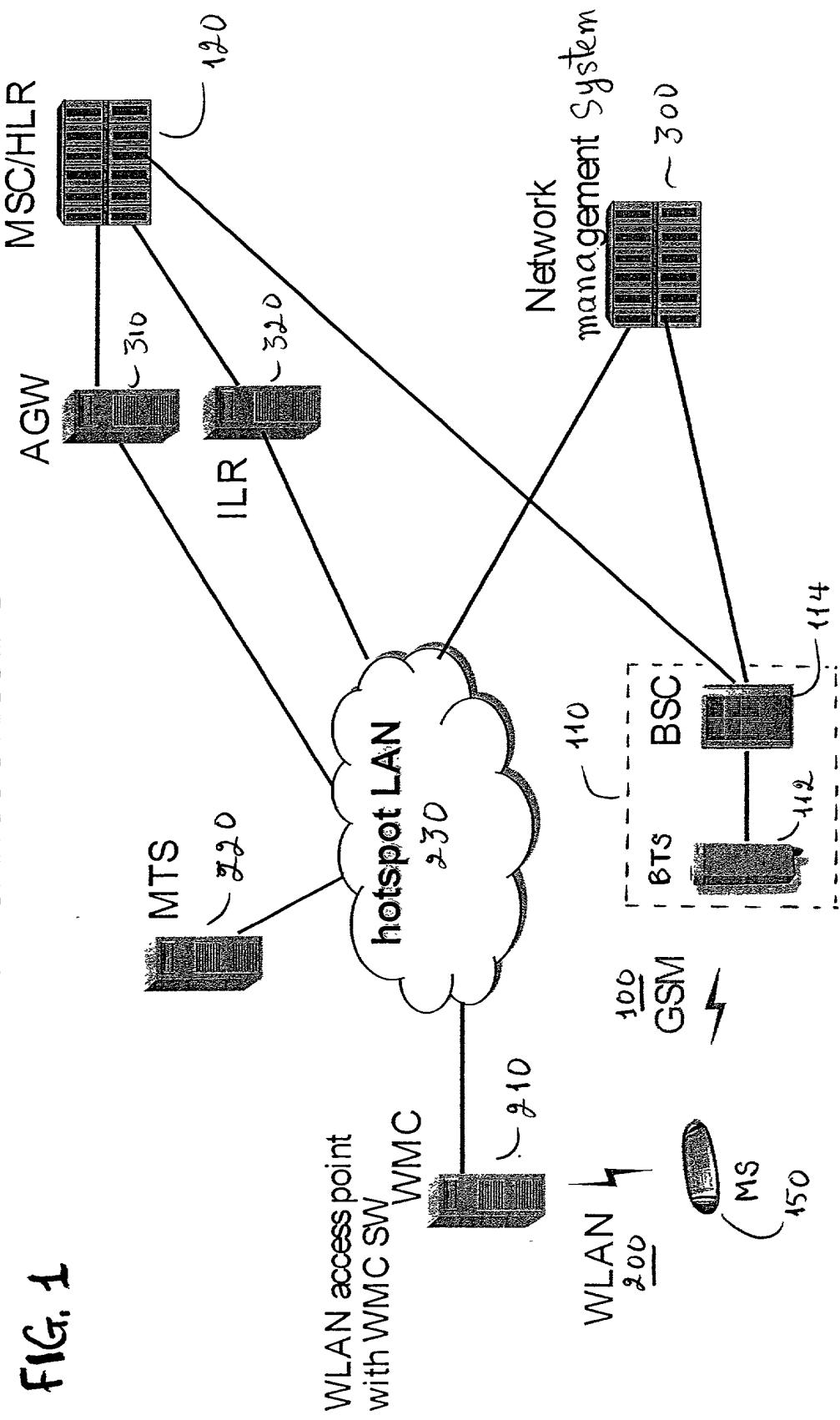
Seamless WLAN GSM mobility idle state GSM to WLAN

WIO

MSC/HLR 190

AGW 310

ILR 320

Network management system 360

BSC 114

LAC A 112

GSM 100

No action in GSM network

hotspot LAN 230

MTS 220

WMC 210

LAC B

WLAN 200

150

FIG. 2
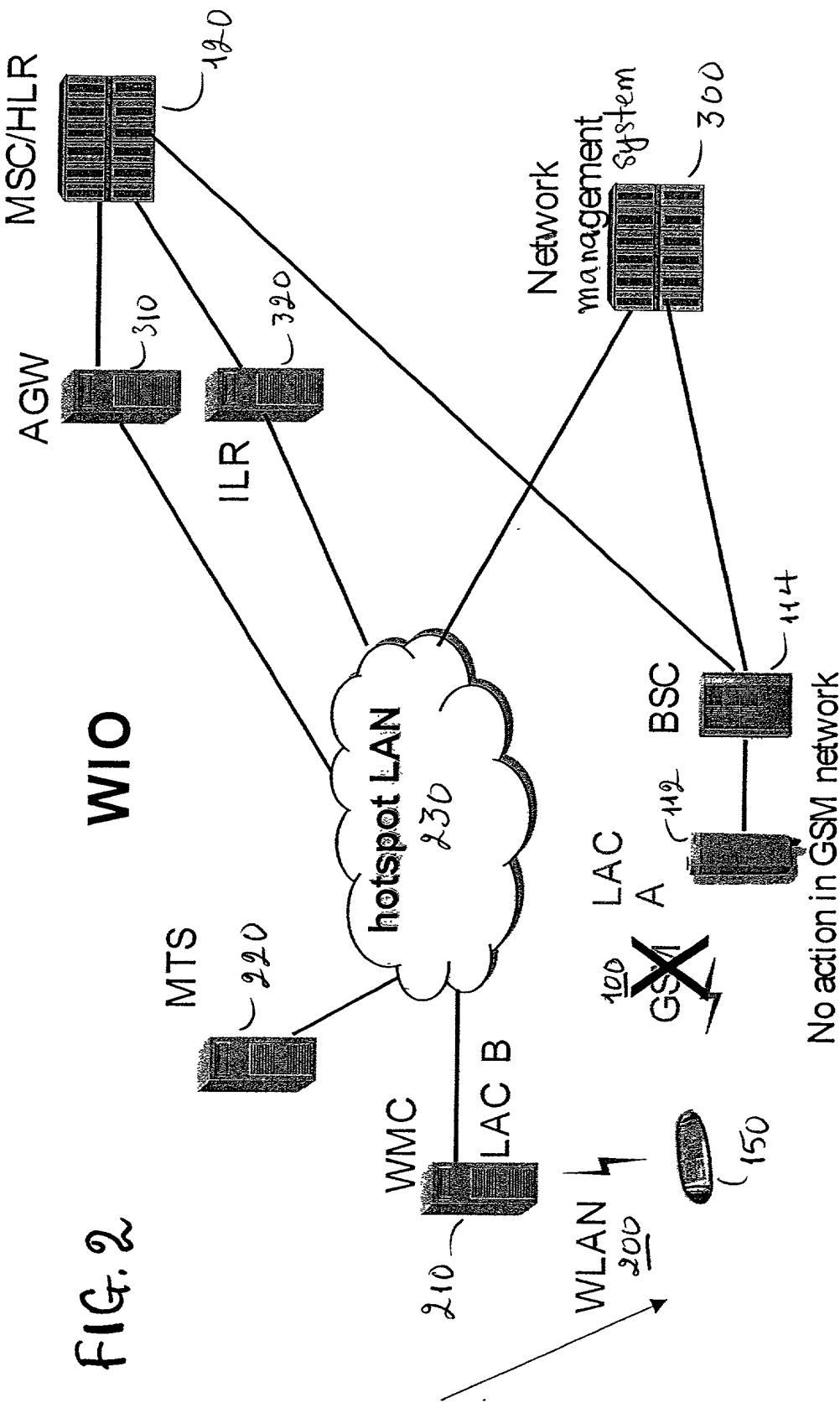
Seamless WLAN GSM mobility
idle state WLAN to GSM

MSC/HLR ~120

AGW ~310

ILR ~320

WIO

Network management system ~300

hotspot LAN ~230

MTS ~220

WMC ~910

LAC B

WLAN 200

10b GSM

LAC A

BSC ~114
~112

No action in GSM network

FIG. 3
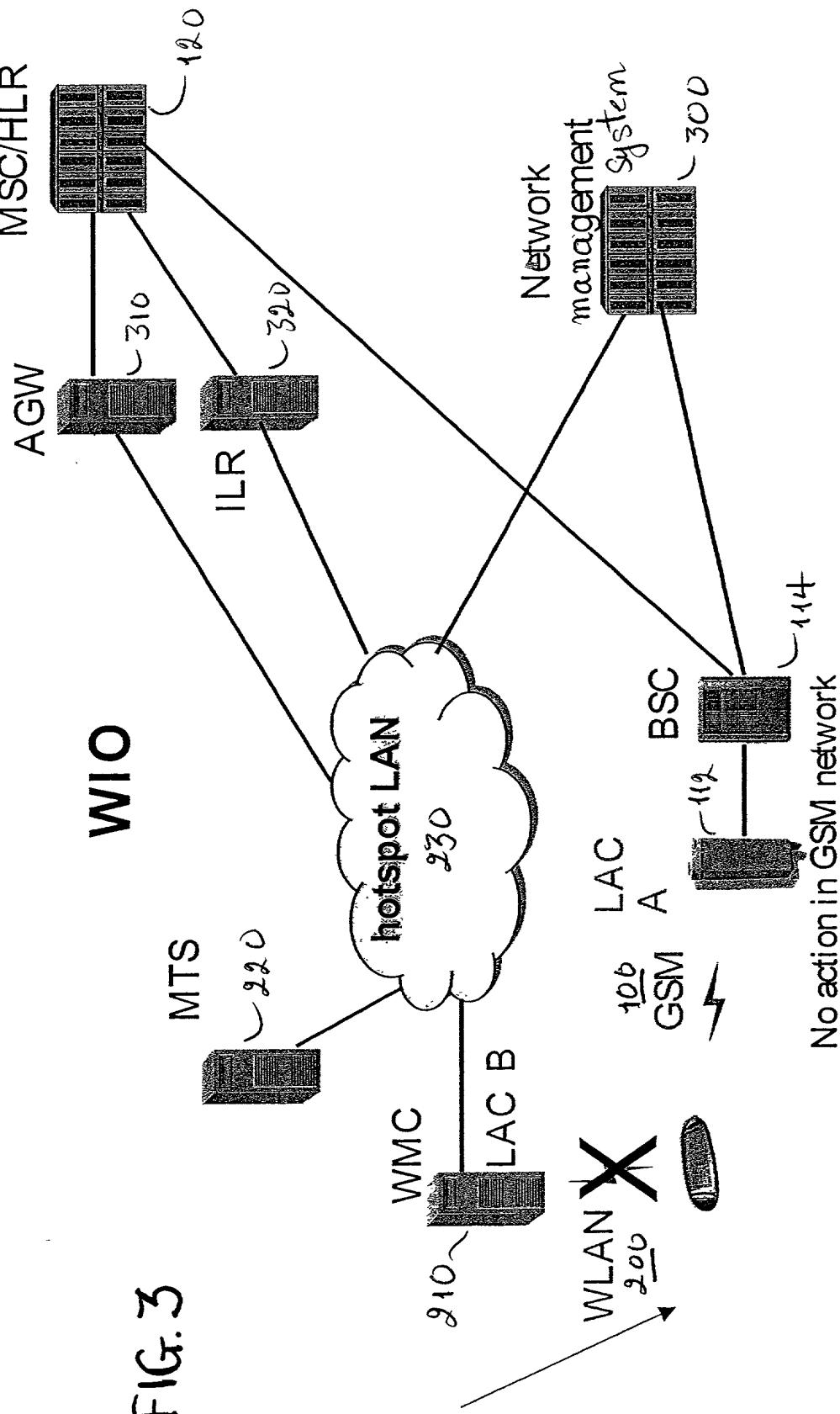
Seamless WLAN GSM mobility
active state GSM to WLAN

FIG. 4

MSC/HLR ~120

WIO

AGW ~310

ILR ~320

Network management system ~300

hotspot LAN 230

MTS ~220

WMC LAC B ~210

WLAN ~200

LAC A 106 GSM ✗

BSC ~114

~112

No action in GSM network
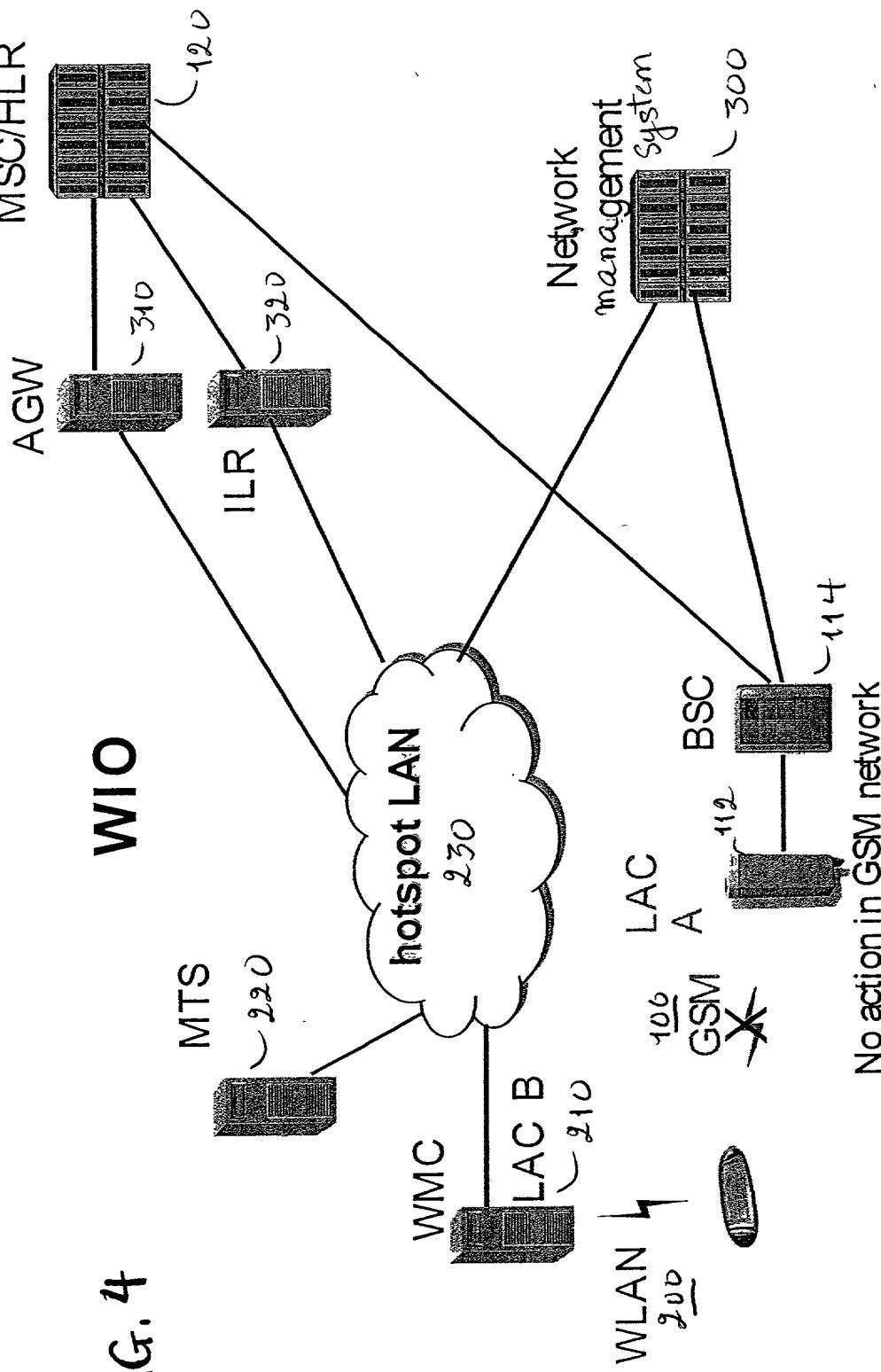
Seamless WLAN GSM mobility active state WLAN to GSM

WIO

FIG. 5

MSC/HLR ~120

AGW ~310

ILR ~320

Network management System ~300

hotspot LAN 230

MTS ~220

WMC 910 ~ LAC B

WLAN 200

LAC A GSM 100

BSC ~114

~112

No action in GSM network